

C-O-N-F-I-D-E-N-T-I-A-L

CIA/RR GB 64-42
November 1964

WINTER CONDITIONS IN LENINGRAD

(59°58'N-30°18'E)

I. General Winter Conditions

Leningrad has a cold, humid climate (see Table 1) -- typical of northern Europe. Winters are long, but relatively warmer than is usual for this northerly latitude. Thaws are frequent, and severe cold spells are usually of short duration. Average daily temperatures of less than 32°F are normal between 11 November and 3 April. The lowest temperature ever recorded in Leningrad was -39°F (in December).

Most winter precipitation is in the form of numerous light snowstorms. Snow can be expected to fall from October through May, but it does not form a persistent cover until several weeks after the first fall and it usually disappears in March or April. The average number of days in the year with snow cover is 132. The frequent thaws, particularly in early winter, make the depth irregular, and at times there are even scattered patches of bare ground. The depth of the snow cover generally builds up through the winter to a maximum of 12.8 inches (statistical average) in late February.

II. Winter Conditions of 1961-62, 1962-63, and 1963-64

During the past three winters (see Table 2), the major deviations from the normal climate were the severely cold weather between January and March 1963 and the unusually wet month of October 1963. Also, both January 1962 and January 1964 were warm enough to have an unusually large number of midwinter thaws.

The winter of 1961-62 was warmer than normal except in December and March. October and November were considerably warmer and drier than usual. Average temperatures dropped to about 22°F in December, 12°F colder than in November. January was somewhat warmer (average temperature 26°F), but average temperatures dropped to 23°F in February and to 19°F in March. December was the wettest month, with almost 2 inches of precipitation.

From October through December 1962 temperatures were about the same as the previous winter, but October and November were wetter and December

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was drier. The period January through March 1963 was unusually cold; average temperatures ranged from less than 9°F in January to 14°F in March. Precipitation was slightly below normal during these 3 months, although its frequency was higher than normal, with 26 days having precipitation in January and 22 in February.

The winter of 1963-64 began with a wet October -- precipitation totaling more than 4 inches. In November the precipitation dropped to near normal, and from December through March less precipitation fell than normal. Temperatures during the winter were near normal, except for December being colder (average temperature 21°F) and January warmer (average temperature 25°F) than normal.

Table 3 presents additional information regarding maximum and minimum temperatures and forms of precipitation for the winter of 1962-63; comparable data are not available for the winters of 1961-62 and 1963-64. During the severe cold weather between January and March 1963, the temperature dropped as low as -15.7°F and did not rise above 36.1°F. Snow was the dominant form of precipitation from December through March, and less wet snow, rain, or drizzle fell than normal.

Table 1
Monthly Temperature and Precipitation

	Temperature (°F)					Average Precipitation (In)
	Average	Average Minimum	Average Maximum	Absolute Minimum	Absolute Maximum	
January	18.5	13.3	23.4	-28.0	42.8	1.42
February	17.8	11.7	23.0	-38.0	42.8	1.26
March	24.6	18.7	31.1	-19.0	55.4	0.98
April	37.2	30.9	44.4	1.0	75.2	1.30
May	49.3	41.9	57.6	22.0	86.0	1.85
June	58.1	50.7	65.5	33.0	89.6	2.48
July	63.9	56.8	71.1	43.0	91.4	2.20
August	60.3	54.1	67.1	37.0	89.6	3.31
September	51.3	45.7	57.2	28.0	82.4	2.52
October	40.5	36.7	45.1	9.0	69.8	2.05
November	30.9	27.3	34.5	1.0	53.6	1.77
December	22.5	18.1	26.8	-39.0	48.2	1.42
Length of record (in years)	54	44	56	58	56	44

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Table 2

Surface Weather Data for Winters

1961-62, 1962-63, and 1963-64

	Temperature (°F)		Precipitation (In)		Relative Humidity	
	Average	Departure	Total	Departure	Average	Departure
<u>1961-62</u>						
October	46.9	+6.4	0.39	-1.66	86	+3
November	34.0	+3.1	1.18	-0.59	88	+2
December	22.3	-0.2	1.97	+0.55	86	-1
January	26.2	+7.7	1.18	-0.24	88	+2
February	22.6	+4.8	1.18	-0.08	82	+1
March	19.4	-5.2	1.18	+0.20	75	-4
<u>1962-63</u>						
October	44.2	+3.7	1.57	-0.48	85	+11
November	35.2	+4.3	1.97	+0.20	88	+1
December	22.8	+0.3	0.79	-0.63	88	0
January	8.8	-9.7	1.18	-0.24	86	0
February	11.8	-6.0	1.18	-0.08	82	-2
March	14.4	-10.2	0.79	-0.19	70	-9
<u>1963-64</u>						
October	43.5	+3.0	4.33	+2.28	88	+14
November	31.6	+0.7	1.97	+0.20	86	-1
December	20.5	-2.0	0.79	-0.63	87	-1
January	24.8	+6.3	1.18	-0.24	86	0
February	16.9	-0.9	1.18	-0.08	87	+3
March	22.6	-2.0	0.39	-0.59	76	-3

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Table 3

Winter Temperature and Precipitation

1962-63

	Temperature (°F)				Precipitation (Hours)		
	<u>Average Maximum</u>	<u>Average Minimum</u>	<u>Absolute Maximum</u>	<u>Absolute Minimum</u>	<u>Rain, Drizzle, Glazed Frost</u>	<u>Snow, Hail</u>	<u>Wet Snow</u>
<u>1962</u>							
October	48.6	39.9	61.2	25.5	85	13	0
November	38.1	31.8	51.1	16.5	118	27	21
December	27.0	18.0	40.1	-10.1	15	212	15
<u>1963</u>							
January	15.1	1.2	30.7	-13.9	0	253	0
February	21.4	4.1	36.1	-15.7	0	197	0
March	24.1	5.5	34.5	-15.5	12	86	30

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